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NOTICE OF ALLOWANCE AND FEE(S) DUE

38834 7590 12/16/2010
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP
1250 CONNECTICUT AVENUE, NW
SUITE 700.

EXAMINER							
KIM, JAY C							
ART UNIT PAPER NUMBER							
2815 DATE MAILED: 12/16/2010							

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,442	06/19/2007	Hironori Yamamoto	063100	6863

 ${\tt TITLE~OF~INVENTION:LIGHT-EMITTING~DIODE~ARRAY,LIGHT-EMITTING~DIODE,AND~PRINTER~HEAD}\\$

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	03/16/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

WASHINGTON DC 20036

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

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appropriate. All further indicated unless corrects maintenance fee notifica	correspondence including the below or directed off tions.	or transmit ig the Pater nerwise in E	ung the 1880 it, advance of Block 1, by (a	rders and notification a) specifying a new o	of n	naintenance fees w pondence address;	ill be and/or	mailed to the current (b) indicating a sepa	corresp trate "F	oondence address as EE ADDRESS" for
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APPLICATION NO.	FILING DATE			FIRST NAMED INVENTOR			ATTORNEY DOCKET NO.			FIRMATION NO.
10/594,442 TITLE OF INVENTION	06/19/2007 : LIGHT-EMITTING 1	IODE ARR	AY, LIGHT-	Hironori Yamamo EMITTING DIODE,		PRINTER HEAD	,	063100		6863
APPLN, TYPE	SMALL ENTITY	SMALL ENTITY ISSUE FEE DUE			DUE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE		DATE DUE
nonprovisional	NO	\$1	1510	\$300		\$0	\$1810			03/16/2011
EXAM	IINER	ART	UNIT	CLASS-SUBCLAS	S					
KIM,	JAY C	2	815	257-091000						
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). ☐ Change of correspondence address (or Change of Correspondence Address form PTOVSB/122) attached. ☐ "Fee Address" indication for "Fee Address" Indication form PTOVSB/12; Rev 03-02 or more recent) attached. Use of a Custome Number is required.				2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered nationery or agent) and the names of up to 2 registered patent autorneys or agents. If no name is listed, no name will be printed.						
3. ASSIGNEE NAME A PLEASE NOTE: Uni recordation as set fort (A) NAME OF ASSIGNAME Please check the appropri	less an assignee is ident h in 37 CFR 3.11. Comp GNEE	ified below, oletion of th	, no assignee is form is NO	data will appear on T a substitute for filin (B) RESIDENCE: (6	the parting an a	atent. If an assigna assignment. and STATE OR C	OUNT			
4a. The following fee(s) Issue Fee Publication Fee (N	vo small entity discount j	oermitted)	41	A check is enclo Payment by cred	sed. lit care	d. Form PTO-2038	is atta	lously paid issue fee ched. required fee(s), any de (enclose a		
- 11	s SMALL ENTITY state	is. See 37 C						TTY status. See 37 Cl		
NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will n tes Patent a	ot be accepte nd Trademark	d from anyone other t Office.	than th	he applicant; a regi	stered a	attorney or agent; or th	ne assigi	ace or other party in
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/594,442	06/19/2007	063100 6863				
38834 75	90 12/16/2010	EXAMINER				
WESTERMAN,	HATTORI, DANIEI	KIM, JAY C				
	CUT AVENUE, NW	ART UNIT	PAPER NUMBER			
SUITE 700 WASHINGTON, I	OC 20036	2815 DATE MAILED: 12/16/2010				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 434 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 434 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/594.442 YAMAMOTO ET AL Notice of Allowability Examiner Art Unit JAY C. KIM 2815 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTQL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFB 1.313 and MPEP 1308. This communication is responsive to RCE filed 12/6/10. 2. The allowed claim(s) is/are 3-5 and 7. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) ☐ Some* c) ☐ None of the: Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. T DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of

- 1. Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date 12/6/10
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date .
- 7. X Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. Other _____.

Application/Control Number: 10/594,442 Page 2

Art Unit: 2815

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Kenneth H. Salen (Reg. No. 43,077) on August 24, 2010.

The Application has been amended as follows:

 (Currently Amended) A light-emitting diode comprising a light-emitting unit having four peripheral side surfaces, wherein

a pair of opposing side surfaces from among said four peripheral side surfaces have surfaces that tilt outward from top to bottom;

another pair of opposing side surfaces adjacent to said pair of opposing side surfaces from among said four peripheral side surfaces have surfaces that tilt inward from top to bottom;

each of four corners of said four peripheral side surfaces is beveled; and an electrode is formed on each surface tilted outward from top to bottom of said pair of opposing side surfaces, and an another electrode is also formed in a wraparound fashion near corners of each surface tilted inward from top to bottom of said another pair of opposing side surfaces adjacent to said another pair of opposing side surfaces, so as to connect to the electrode formed on said each said surface tilted outward from top to bottom of said pair of opposing side surfaces.

Art Unit: 2815

6. (Cancelled).

7. (Currently Amended) A printer head characterized in comprising as a light

source the light-emitting diode array according to claim 63.

Allowable Subject Matter

Claims 3-5 and 7 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claim 3, Shibata et al. (US 2002/0070383) disclose all the limitations

except for the limitation "an electrode layer or a light-blocking film provided to each of

said light-emitting units surrounds three sides, as viewed from above, of a light emitting

window of each of said plurality of light-emitting units (emphasis added)" as shown in

Figs. 2A and 2B of current Application.

Regarding claim 4, Kanzawa et al. (US 4,984,035) disclose all the limitations of claim 4 in Fig. 12 except for limitations "each of four corners of said four peripheral side

surfaces is beveled" and "another electrode is formed in a wraparound fashion near

corners of each surface tilted inward from top to bottom of said another pair of opposing

side surfaces".

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAY C. KIM whose telephone number is (571)270-1620. The examiner can normally be reached on 7:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Parker can be reached on (571) 272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. K./ Examiner, Art Unit 2815 December 13, 2010 /Jerome Jackson Jr./ Primary Examiner, Art Unit 2815